

AMENDMENTS TO THE CLAIMS

This listing of claims will replace, without prejudice, all prior versions, and listings, of the claims in the application.

Listing of Claims:

Claims 1-10 (Cancelled)

11. (**Currently amended**) An isolated ~~oligonucleotide or polynucleotide sequence~~ encoding:

(a) a ribosome-inactivating protein according to claim 1, having a molecular weight of about 26,000 daltons by polyacryl-amide gel electrophoresis under reducing and non-reducing conditions, a pI of about 9.0, and comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence:

YNTVSFNLGEAYEYPTFIQDLRNELAKGTP (SEQ ID No. 1),

or a biologically active fragment of the protein having ribosome inactivating properties; or

(b) a toxin-ligand conjugate according to claim 6, or part of thereof comprising a sequence of at least 15, especially at least 24 nucleotides comprising the ribosome-inactivating protein of (a) or a biologically active fragment thereof.

12. (**Currently amended**) A recombinant vector comprising ~~an oligonucleotide or the polynucleotide sequence~~ according to claim ~~10~~ 11.

13. (**Currently amended**) The recombinant vector of claim 12, further comprising transcriptional and translational control sequences operably linked to the ~~oligonucleotide sequence encoding the ribosome-inactivating protein~~ encoding polynucleotide.

14. (**Currently amended**) A host cell transfected with [a] the recombinant vector of claim 12.

15. **(Currently amended)** A method for the recombinant expression of ~~bouganin~~ a ribosome-inactivating protein having a molecular weight of about 26,000 daltons by polyacryl-amide gel electrophoresis under reducing and non-reducing conditions, a pI of about 9.0, and comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence, YNTVSFNLGEAYEYPTFIQDLRNELAKGTP (SEQ ID No. 1), or a biologically active fragment of the protein having ribosome inactivating properties, the method comprising:

- _____ (a) transfecting a host cell with an expression vector comprising an ~~oligonucleotide sequence~~ polynucleotide encoding the ~~bouganin-amino acid sequence or an~~ ribosome-inactivating protein or biologically active fragment thereof,
- _____ b) growing the transfected host cells,
- _____ (c) inducing the transfected host cells to express ~~recombinant bouganin~~ the ribosome-inactivating protein or biologically active fragment thereof, and
- _____ (d) isolating the expressed recombinant ~~bouganin~~ ribosome-inactivating protein or biologically active fragment thereof.

16. **(Previously presented)** The method of claim 15, wherein said host cell is a bacterium, a plant cell, or a yeast.

17. **(Currently amended)** A method for producing a recombinant ~~bouganin-ligand fusion-protein~~ toxin-ligand conjugate, the method comprising:

- _____ (a) transfecting a host cell with an expression vector comprising a nucleotide sequence encoding the ~~bouganin-amino acid sequence~~ a toxin-ligand conjugate comprising a ribosome-inactivating protein having a molecular weight of about 26,000 daltons by polyacryl-amide gel electrophoresis under reducing and non-reducing conditions, a pI of about 9.0, and comprising an amino acid amino acid sequence at least 75% identical to the amino acid sequence, YNTVSFNLGEAYEYPTFIQDLRNELAKGTP (SEQ ID No. 1), or a biologically active fragment of the protein having ribosome inactivating properties operably linked with a nucleotide sequence which encodes a ligand,
- _____ (b) growing the transfected host cells,
- _____ (c) inducing the transfected host cells to express the recombinant ~~bouganin-ligand fusion protein~~ toxin-ligand conjugate, and
- _____ (d) isolating the expressed recombinant ~~fusion-protein~~ toxin-ligand conjugate.

18. **(Previously presented)** The method of claim 17, wherein said host cell is a bacterium, a plant cell, or a yeast.

19. **(Currently amended)** The method of claim 17, wherein the ligand is ~~a large molecular weight protein, a small molecular weight protein,~~ a polypeptide, or a peptide ligand.

20. **(Previously presented)** The method of claim 19, wherein the ligand is an immunoreactive ligand.

Claims 21-26 **(Cancelled)**

27. **(New)** The method of claim 17, wherein the ligand is an immunoglobulin, hormone, growth factor, or a peptide.

28. **(New)** The polynucleotide of claim 11, wherein the encoded ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No.1.

29. **(New)** The polynucleotide of claim 11, wherein in the encoded ribosome-activating protein comprises an amino acid amino acid sequence at least 75% identical the amino acid sequence set forth in SEQ ID No. 9.

30. **(New)** The polynucleotide of claim 11, wherein the encoded ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No. 9.

31. **(New)** The method of claims 15, wherein the ribosome-inactivating protein comprises the amino acid sequence set forth in SEQ ID No.1.

32. **(New)** The method of claims 15, wherein the ribosome-inactivating protein an amino acid amino acid sequence at least 75% identical the amino acid sequence set forth in SEQ ID No. 9.

33. **(New)** The method of claims 15, wherein the ribosome-inactivating protein ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No. 9.

34. **(New)** The method of claims 17, wherein the ribosome-inactivating protein comprises the amino acid sequence set forth in SEQ ID No.1.

35. **(New)** The method of claims 17, wherein the ribosome-inactivating protein an amino acid amino acid sequence at least 75% identical the amino acid sequence set forth in SEQ ID No. 9.

36. **(New)** The method of claims 17, wherein the ribosome-inactivating protein ribosome-activating protein comprises the amino acid sequence set forth in SEQ ID No. 9.